

Claims

What is claimed is:

- 1 1. A system for channeling high frequency signals within an electronic device,
2 comprising:
3 a midplane circuit board;
4 a midplane chassis shield disposed adjacent to said midplane circuit board;
5 an interface module suitable for being coupled to said midplane circuit board through
6 said midplane chassis shield;
7 wherein said midplane circuit board, midplane chassis shield and interface module
8 cooperate for providing a low impedance tunnel for channeling high
9 frequency signals to ground.
- 1 2. The system according to claim 1, wherein said interface module comprises
2 an interface module container and an interface circuit board, said interface circuit board
3 being substantially contained within said interface module container.
- 1 3. The system according to claim 2, further comprising an interface connector
2 suitable for coupling said interface circuit board to said midplane circuit board said interface
3 connector including a first connector half coupled to said interface circuit board and a second
4 connector half coupled to said midplane circuit board.
- 1 4. The system according to claim 3, wherein said first connector half comprises
2 an interface connector shield further cooperating with said midplane circuit board, midplane
3 chassis shield and interface module cooperate for providing a low impedance tunnel for
4 channeling high frequency signals to ground.

1 5. The system according to claim 4, further comprising a gasket disposed
2 between said interface connector shield and said interface module container.

1 6. The system according to claim 3, wherein said connector further comprises
2 at least one logic pin and at least one ground shield pin.

1 7. The system according to claim 2, wherein said interface module container
2 further comprises at least one suspension ground spring suitable for substantially holding
3 said interface module in said electronic device.

1 8. The system according to claim 1, wherein said midplane chassis shield
2 comprises at least one guide for securing said interface module to said midplane chassis.

1 9. The system according to claim 1, wherein said interface module further
2 comprises an EMC seal.

1 11. The electronic device according to claim 10, wherein said interface module
2 comprises an interface module container and an interface circuit board, said interface circuit
3 board being substantially contained within said interface module container.

1 12. The electronic device according to claim 11, further comprising an interface
2 connector suitable for coupling said interface circuit board to said midplane circuit board said
3 interface connector including a first connector half coupled to said interface circuit board and
4 a second connector half coupled to said midplane circuit board.

1 13. The electronic device according to claim 12, wherein said first connector half
2 comprises an interface connector shield further cooperating with said midplane circuit board,
3 midplane chassis shield and interface module cooperate for providing a low impedance
4 tunnel for channeling high frequency signals to ground.

1 14. The electronic device according to claim 13, further comprising a gasket
2 disposed between said interface connector shield and said interface module container.

1 15. The electronic device according to claim 14, wherein said connector further
2 comprises at least one logic pin and at least one ground shield pin.

1 19. A system for channeling high frequency data signals within an electronic
2 device, comprising:
3 a housing;
4 a midplane circuit board disposed in said housing;
5 an interface module suitable for being coupled to said midplane circuit board;
6 means for providing a low impedance tunnel for channeling high frequency signals
7 in said midplane circuit board and interface module to ground.

1 20. The system as claimed in claim 19, further comprising means for removably
2 mounting said interface module in said housing wherein said interface module is coupled to
3 said midplane circuit board.